

# Ali Ameli

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Portfolio: <https://aameli1376.github.io/github-portfolio/>

Experienced Software Developer in Data Engineering/Science skilled in designing and implementing enterprise-wide solutions. Ready to bring 5 years of progressive experience and take on a challenging new role with growth potential.

## SKILLS

Knowledge: Machine Learning, Deep Learning, Data Visualization, Database Systems

Programming Languages: Python, R, C, C++, Java, SQL (PostgreSQL, MySQL), NoSQL (MongoDB)

Libraries: NumPy, Pandas, OpenCV, Scikit-Learn, TensorFlow, Keras, NLTK, SciPy, Matplotlib, Plotly, Seaborn

Tools and Technologies: Cloud Platforms (AWS, GCP), Workflow Management (SnakeMake), Data Warehousing (Snowflake, BigQuery), Version Control (Git, GitHub), Apache Kafka, Apache Spark

## EXPERIENCE

### Software Developer (Data Engineering)

Nov 2022 - Nov 2023

Alooki Inc, St. John's, NL

- **Analyzed** user requirements and **conceived** ETL and ELT processes, **loading** enterprise data into Data Warehouses (Google BigQuery, Snowflake), resulting in a **30% increase** in data processing efficiency.
- **Created** dashboards with interactive visualizations using Google Looker Studio and Tableau, **improving** data accessibility and decision-making speed by **25%**.
- **Managed**, and **architected** databases such as PostgreSQL/MySQL to securely store application data, ensuring **high scalability** and **99.9% reliability**.
- **Migrated** on-premises data solutions to the cloud, **leveraging** Google Cloud Platform (GCP) services, **enhancing** scalability and **cutting** operational costs by **20%**.
- **Optimized** and **orchestrated** cloud resources, including Storage buckets, Compute Engine, IAM, and databases, **improving** resource utilization and **boosting** performance by **15%**.

### NSERC Research Assistant

Sep 2020 - Dec 2022

Memorial University of Newfoundland, St. John's, NL

- **Engineered** an effective algorithm for cleaning massive genomics datasets, specifically Genome-Wide Association Study (GWAS) data, on High-Performance Computing (HPC) systems, **enhancing** data integrity and **reducing** processing time by **30%**.
- **Leveraged** SRAToolkit and PLINK for genome preprocessing, **improving** data quality and accessibility, streamlining the processing of large-scale genomics datasets by **30%**.

- **Implemented** feature selection algorithms on Parkinson's Disease (PD) datasets to identify critical features for analysis, **increasing** diagnostic model accuracy by **20%**.
- **Innovated** machine learning approaches for classifying Parkinson's Disease (PD) datasets, **enhancing** diagnostic capabilities and **identifying** crucial PD biomarkers through in-depth analysis of Whole Genome Sequencing (WGS) outputs, **boosting** model precision by **25%**.

## Software Developer (Data Engineering)

Jan 2015 - Jan 2019

Jarf Tadbir Toos (JTT) Inc, Mashhad, Iran

- **Conceived** and **implemented** scalable data pipelines using Python and Apache Spark for both ELT and ETL processes, **improving** data processing speed by **20%**.
- **Harnessed** AWS tools such as EC2, S3, Redshift, and Lambda to build a robust and cost-effective data storage, processing, and analysis infrastructure for ELT and ETL workflows, achieving a **25%** reduction in operational costs.
- **Partnered** with data scientists, product managers, and DevOps engineers to understand business requirements and deliver data solutions that met stakeholder needs, enhancing cross-functional team efficiency by **20%**.
- **Streamlined** data processing workflows, including ELT and ETL processes, realizing significant performance improvements through query optimization and distributed computing techniques, leading to a **15%** enhancement in system efficiency.

## EDUCATION

### Master of Science (M.S.) - Computer Science

Sep 2020 - Dec 2022

Memorial University of Newfoundland, St. John's, NL

- Thesis: Assessing the reproducibility of machine-learning-based biomarker discovery in Parkinson's disease 2024.

### Bachelor of Engineering (B.E.) - Computer Engineering

Sep 2015 - Dec 2019

Ferdowsi University of Mashhad, Mashhad, Iran

- Thesis: Design and implementation of a recommender system for TRIVAGO WEBSITE.

## AWARDS & CERTIFICATIONS

- Alberta Machine Intelligence Institute (Amii) 2023 Bursary for Upper Bound AI Week
- Academic Excellence Award Memorial University of Newfoundland
- Certificate of Participation Study and Stay NL Program
- Volunteer Incentive Program (Bronze, Silver, Gold Level Award)
- Certified AWS Cloud Practitioner